

XXX.—*On the Birds of Margarita Island, Venezuela.*

By PERCY R. LOWE, B.A., M.B., &c.

I HAVE thought it worth while to place on record the birds which I have observed during two flying visits to this island: once in January 1904, when Dr. Bowdler Sharpe and I made a small collection; and again in March 1906, when I obtained a somewhat larger number. Small though the series necessarily was, it is interesting as being the first to arrive in England from this island and as containing so many examples which differ more or less from the mainland forms. The specimens which we collected are referable to fifty species.

Two American naturalists (Lieut. Robinson and Mr. Austin H. Clark) have previously recorded the results of their observations and collections in Margarita (see Proc. U.S. Nat. Mus. vol. xviii. pp. 649–685, and ‘The Auk,’ vol. xix. No. 3, pp. 258–267).

We arrived off the island (on our first visit) on Jan. 6, 1904, in the steam yacht ‘Emerald’ (the first turbine yacht, by the way, to cross the Atlantic), and it was due to the kindness and hospitality of Sir Frederic Johnstone and Lady Wilton that we were lucky enough to have such an expert in bird-lore as Dr. Sharpe with us.

After a little difficulty in deciding the question as to our proper objective, owing to the confusion of names on the chart and in the sailing-directions, we at length dropped our anchor off Porlemar, about a mile and a half from the shore. This rather shabby and squalid collection of adobe houses and mud-and-wattle huts does duty as the only port of Margarita. A small fleet of pearl-fishing boats anchored in the roadstead was about the only evidence of industry or activity apparent.

Niño, one of Christopher Columbus’s lieutenants, came here in 1499, also in search of the pearls, and was the first person from the Old World to land on the island.

Seen from our anchorage, Margarita, although possessing a certain charm in virtue of its wild appearance, was not

prepossessing. We were fresh from the riotous vegetation and verdant wonders of Trinidad, and were hardly prepared for the forbidding and almost cruel aspect of nature as it exists on this offshoot from the mainland of Venezuela. In the space of a bare eighteen hours' sea-passage, rampant growths of tropical forests had given place to bare mountains, sandy wastes, and scrubby plains. One could hardly have experienced a more striking contrast.

The Island of Margarita is thirty-seven miles in length, and consists of two mountainous masses of rock (Archæan schists), connected by a low sandy isthmus. In places this isthmus is very narrow, and, as it is roughly ten miles long, the island, when viewed from only a short distance to the north or south, appears as two islands.

At the eastern end, where we first landed, is a formidable chain of mountains much broken up into ridges and spurs, between which are cultivated valleys. In the centre of this chain rises Mount Margarita to a height of about 3240 feet.

The western portion of the island consists of practically an unbroken rocky mass which bears the name of Cerros de Macanao. These rocks reach an altitude of 2304 feet above sea-level. Towards their summits they are very bare and of a deep ferruginous tint.

The whole area of the island is 440 square miles, and it is said to have a population of 20,000.

The eastern extremity, Punta de la Ballena, is only seventeen miles distant from the nearest point of Venezuela. The island is not well watered. A few small streams find their way down from the southern face of the mountains, swelling, no doubt, during rains to respectable torrents, but with the exception of one stream which enters the sea to the east of Porlema they are quite insignificant.

From the height of the mountains one would have expected a goodly quantity of rain to be extracted from the moisture-laden trade-winds, but apparently this is intercepted by the outer chain of islands forming the Windward group of the Antilles, and so Margarita remains a dry and

somewhat parched-up island. Here and there are a few small lagoons and water-holes, always sure "finds" for the bird-collector, and towards the western extremity of the island is a large lagoon-like inlet from the sea of many acres in extent. It is bordered with the inevitable fringe of mangroves and studded with a maze of small islands. Low swampy ground and sandy wastes of prickly cactus-scrub border it on two sides, and the locality forms a perfect treasure-ground for the ornithologist.

A low-lying shore-belt surrounds nearly the whole island and extends inland for about three or four miles. This belt is dry, infertile, flat, and very hot.

Sun-baked patches of crude red soil alternate with patches of sand or gravel. The soil supports a flourishing and hopeless tangle of cactus-scrub (*Cereus* and *Opuntia*). Everything, in fact, that grows in this zone is armed with terribly long thorns and prickles. The growth of upright cacti is so thick in places that constant and worrying detours are continually needed to make any progress. We did not forget our experiences of it for many a day. After each excursion ashore quite a long time had to be spent in extracting the poisonous thorns from various parts of our bodies, and some of us suffered from painful abscesses which were long in healing.

To retrieve birds in this sort of scrub is often a long and tedious process, and much time is wasted in this way, while the explorer is converted into an animated pin-cushion.

In spite of these troubles, however, we found birds in this belt in plenty—*Polioptila*, *Dendroplex*, *Melanerpes*, *Chamaepelia*, *Scardafella*, *Eupsychortyx*, *Cardinalis*, *Icterus*, *Doleromyia*, *Conurus*, *Amazona*, *Cæreba*, *Mimus*, &c.

Further inland a region of extremely broken ground and low hillocks forms the approach to the central chain of mountains. This area is occupied in places by cocoanut and banana plantations, as well as small cultivated holdings, where the visitor is always sure of finding birds.

El Valle, one of the principal villages on the island, is situated in this zone, and I spent some time collecting in

the high ground above it. Here I obtained specimens of *Quiscalus*, *Tachyphonus*, *Bucco*, *Icterus*, *Scardafella*, *Tanagra*, *Synallaxis*, *Amazilia*, *Chlorostilbon*, &c. I also, on two occasions, saw Swifts (*Chætura lawrencei*?), but though I waited patiently for a shot they always flew too high for me to obtain any specimens.

During both my visits I spent some time collecting round a very large lagoon and mangrove-swamp situated at the western extremity of the island. Had my time been less occupied with the more interesting land-birds there would have been little difficulty in making a very large collection here of the great variety of sea-birds, Herons, Waders, Plovers, &c.

Thus I either saw or shot :—Pelicans, Cormorants, Herons (*Ardea herodias*, *A. cærulea*, *A. occidentalis*, *A. candidissima*, and *A. butorides*), Ospreys, Turkey-Vultures, Buzzards, Caracaras, Flamingos, Kingfishers (*Ceryle torquata* and *C. alcyon*), Spoonbills, Scarlet Ibises, and a host of Plovers and Waders either recorded below or in the papers of Capt. Robinson and Mr. Clark.

At this end of the island is a very primitive fishing-village, and I noticed with interest about a dozen examples of *Ardea tricolor* which were busily catching small fry in a shallow piece of brackish water close to it. These birds were quite tame and wandered about in and out of the huts catching "grasshoppers" and vermin, with which the place was overrun. An Oyster-catcher, which was walking about on the beach in front of some huts, allowed me to take a leisurely photograph of it within five yards distance.

I made a hurried visit to the high woods during my second visit, but saw nothing of the Curassow, Cuckoo (*Diplopterus nævius*), or Thrush (*Turdus carbonarius*). Just before we left, however, a native brought on board a live Curassow (*Ortalis ruficauda*) with its wings clipped and in poor plumage. He assured me that the country people keep these birds alive and cross them with their tame poultry.

I take this opportunity of expressing my gratitude to

Dr. Bowdler Sharpe for his invaluable assistance in preparing my paper. My interest in ornithology is entirely due to his encouragement and instruction. To his excellent assistant, Mr. Chubb, I am also deeply indebted.

EUPSYCHORTYX PALLIDUS.

Eupsychortyx pallidus Richmond, Proc. U.S. Nat. Mus. xviii. p. 657 (1895); Clark, Auk, xix. p. 260 (1902).

a, b. ad. Jan. 6, 1904. [R. B. S.]

c. ad. Jan. 9, 1904. [P. R. L.]

In comparison with birds from British Guiana (*E. sonnini*) I find that these specimens are much paler.

We came across two coveys in the cactus-scrub towards the western end of the island. They are stated to be common among the foot-hills, but I found none there during my second visit to the island in 1906.

SCARDAFELLA RIDGWAYI.

Scardafella ridgwayi Richmond, Proc. U.S. Nat. Mus. xviii. p. 660 (1895); Clark, Auk, xix. p. 261 (1902).

a, b. ♂ ad. }
c. ♀ ad. } Jan. 6, 1904. [P. R. L.]

d. ♀ ad. Jan. 7, 1904. [R. B. S.]

e. ♂ ad. March 22, 1906. [P. R. L.]

f, g, h. ♀ ad. March 23, 1906. [P. R. L.]

These Doves are very common in the low-lying sandy cactus-scrub. The peculiar rattle of their wings as they take to flight becomes a very familiar sound to the wanderer through the scrub. They have a rapid flight, much faster than that of *Chamæpelia*.

One of the females which I procured on the 23rd of March was apparently nesting, as it had a large egg in the oviduct.

As this bird lives in the sandy wastes of the island, one might have expected it to have assumed a paler tint, similar to that of several other forms on the island; but, on the contrary, Mr. Richmond says that it differs from *S. squamosa* "in the broader black edgings to the feathers" and that "the vinaceous colour is a little deeper."

CHAMÆPELIA PASSERINA PERPALLIDA.

Columbigallina passerina perpallida Hartert, Ibis, 1903, p. 304.

Columbigallina passerina Berl. J. f. O. 1892, p. 97 (Curaçao); Robinson, Proc. U.S. Nat. Mus. xviii. p. 659 (1895).

a, b. ad. et juv. Jan. 6, 1904. [R. B. S.]

c, d. ♂ ad. et ♀ juv. Jan. 6, 1904. [P. R. L.]

e, f. ♂; *g, h, i.* ♀ ad. March 22, 1906. [P. R. L.]

I have compared this series with specimens from Curaçao, Bonaire, and Aruba, kindly lent me for comparison by the Tring Museum, and I can discover no differences. Apparently this pale form inhabits all the islands lying north of the mainland of Venezuela, for I have in my collection a series of eight Ground-Doves shot on Blanquilla Island which are identical with this bird, and I have recently found the same form on the Los Hermanos group of islands.

LEPTOPTILA VERREAUXI.

Leptotila insularis Richmond, Proc. U.S. Nat. Mus. xviii. p. 659 (1895); Clark, Auk, xix. p. 261 (1902).

a, b. ♂ ad. } March 21–23, 1906. [P. R. L.]
c. juv. ? sex. }

Although the two adult specimens which I obtained agree in coloration of plumage with Mr. Richmond's description of the Margarita bird, yet I find that they can be exactly matched with specimens of *L. verreauxi* from Trinidad.

The measurement of the wings in both is 5·30 inches.

The colours of the soft parts in the quite fresh state are:—Circumorbital space bright cobalt-blue. Iris dirty yellow. Bill uniformly black; tarsi and feet reddish pink.

Mr. Hellmayr ('Novitates Zoologicæ,' vol. xiii. no. 1, 1906) has lately stated in a paper on the birds of Trinidad that "the birds from Trinidad, Tobago, and Venezuela are absolutely identical with the one from Margarita Island."

OCHTHODROMUS WILSONIUS RUFINUCHA.

Egialitis wilsonia rufinucha Ridgw.; Robinson, Proc. U.S. Nat. Mus. xviii. p. 656 (1895).

Ochthodromus wilsoni (Vieill.) ; Sharpe, Cat. B. Brit. Mus. xxiv. p. 214, part. (1896).

a, b. ♂ ; *c, d.* ♀. Jan. 6, 1904. [R. B. S.]

e, f. ♂. Jan. 8, 1904. [P. R. L.]

g, h, i. ad. March 20, 1906. [P. R. L.]

These Plovers were very common on the sandy inland stretches to the east of the big lagoon at the western end of the island. When stationary they are easily overlooked, as they exactly match the colour of the ground they frequent. On settling again after being disturbed the whole flock runs forward a little way and then remains motionless with the backs of the birds directed towards the intruder.

In January the males were moulting and assuming the rufous ear-coverts and collar on the fore-neck (*cf.* Sharpe, *l. c.*).

These birds are very fond of running along the hard wet sand left by receding waves on the sea-shore in search of minute crustacea.

ÆGIALITIS SEMIPALMATA.

Ægialeus semipalmatus (Bonap.) ; Sharpe, Cat. B. Brit. Mus. xxiv. p. 250 (1896).

Ægialitis semipalmata Robinson, Proc. U.S. Nat. Mus. xviii. p. 656 (1895).

a. ♀ ad. In winter plumage. Jan. 9, 1904. [P. R. L.]

TRINGOIDES MACULARIUS.

Tringoides macularia (Linn.) ; Sharpe, Cat. B. Brit. Mus. xxiv. p. 468 (1896).

a. ♂ imm. Jan. 6, 1904. [R. B. S.]

LIMONITES MINUTILLA.

Limonites minutilla (Vieill.) ; Sharpe, Cat. B. Brit. Mus. xxiv. p. 548 (1896).

a. ad. Jan. 8, 1904. [P. R. L.]

SYMPHEMIA SEMIPALMATA.

Scolopax semipalmata Gm. Syst. Nat. i. p. 659 (1788).

Symphemia semipalmata Sharpe, Cat. B. Brit. Mus. xxiv. p. 405 (1896).

a. Ad. March 24, 1906. [P. R. L.]

There were several flocks of these birds on the margins of the lagoon at the west end of the island.

TOTANUS FLAVIPES.

Totanus flavipes Sharpe, Cat. B. Brit. Mus. xxiv. p. 431 (1896).

a, b. March 23, 1906. [P. R. L.]

A good many of these Yellowshanks frequent the muddy shores of the lagoons at the west end of the island.

ARDEA HERODIAS.

Ardea herodias Sharpe, Cat. B. Brit. Mus. xxvi. p. 80 (1898).

a. ♂ ad. Margarita Island, Jan. 6, 1904. [P. R. L.]

An example of *Ardea occidentalis* was caught alive and liberated.

HERODIAS EGRETTE.

Herodias egretta Sharpe, Cat. B. Brit. Mus. xxvi. p. 95 (1898); id. Hand-l. B. i. p. 195 (1899).

One adult. Margarita Island, Jan. 1904.

LEUCOPHOYX CANDIDISSIMA.

Leucophoyx candidissima Sharpe, Cat. B. Brit. Mus. xxvi. p. 124 (1898).

Garzetta candidissima Robinson, Proc. U.S. Nat. Mus. xviii. p. 655 (1895); Clark, Auk, xix. p. 260 (1902).

One adult. Margarita Island, Jan. 6, 1904.

BUTORIDES VIRESCENS ROBINSONI.

Butorides robinsoni Richmond, Proc. U.S. Nat. Mus. vol. xviii. p. 655 (1895).

a. ♂ ad. }
b. ♀ imm. } March 21, 1906. [P. R. L.]

Irides chrome-yellow.

My adult male approaches in its plumage adult specimens of *B. striata* from S. Paulo, but is not quite so slaty-grey on the cheeks, neck, and sides of body, nor are the streaks on the throat and fore-neck of such a light tawny colour as

in *B. striata*, but are more dusky brown. The sides of the face in the Margarita bird are dull slaty-brown, as are also the feathers of the neck.

The immature bird has the sides of the face rufous, which is characteristic rather of *B. virescens*, so that it would appear that *B. robinsoni* holds an intermediate position between *B. striata* and *B. virescens*.

An immature bird which I shot in the Laguna del Obispo, on the northern coast of Venezuela, opposite Margarita, appears to be *B. robinsoni* rather than *B. striata*, while a specimen which I shot in Trinidad is undoubtedly *B. striata*.

A bird which I obtained on Blanquilla Island tends towards *B. virescens*, but has points in which it resembles *B. striata*.

Evidently, therefore, in the islands along these shores the ranges of the two species overlap and the two forms interbreed.

Since writing the above, I notice that Mr. Hellmayr ("Birds of Trinidad," Nov. Zool. xviii. no. 1, 1906, p. 51) states, under the heading *Butorides virescens*:—"As far as I know, this species has not been taken before on the island of Trinidad; but since Mr. André sent only young birds I cannot determine to which of the numerous subspecies they should be referred." He also states that a good series from Tobago appear to be true *B. virescens*, which helps to bear out the statement that the two forms tend to overlap and possibly interbreed along the northern coast of Venezuela.

CATHARTES AURA.

Cathartes aura Robinson, Proc. U.S. Nat. Mus. xviii. p. 661 (1895); Sharpe, Hand-l. B. i. p. 240 (1899); Clark, Auk, xix. p. 261 (1902).

One adult. Jan. 6, 1904. [P. R. L.]

The following note on the colour of the soft parts I took, with the help of Dr. Bowdler Sharpe, immediately I had shot this bird:—

"Bill whitish; cere and fore part of head fleshy pink, with scanty black hairs all over the head and small tufts in

front of the lores, followed by a pale lemon-yellow band across the crown and round the eyes; the latter a little duller. Then a band of dull fleshy pink across the hinder crown, followed by a series of folds of lemon-yellow. The whole of the sides of the head, face, and throat dull fleshy pink."

CERCHNEIS ISABELLINA.

Cerchneis isabellina Sharpe, Hand-l. B. i. p. 278 (1899).

Falco sparverius Robinson, Proc. U.S. Nat. Mus. xviii. p. 661 (1895); Clark, Auk, xix. p. 261 (1902).

a. ♀ ad. Jan. 6, 1904. [R. B. S.]

b. ♀ ad. March 22, 1906. [P. R. L.]

Mr. Richmond has identified the specimens procured by Capt. Robinson as *Falco sparverius* (cf. Robinson, *t. c.* p. 661).

I have examined our specimens along with Dr. Sharpe, and consider them to be *C. isabellina* and not *C. sparverius*.

PISORHINA CHOLIBA.

Megascops choliba Berlepsch, Bull. Brit. Orn. Club, xii. p. 9 (1901).

Megascops brasiliannus Robinson, Proc. U.S. Nat. Mus. xviii. p. 662 (1895); Clark, Auk, xix. p. 262 (1902).

a. ♀ ad. March 21, 1906. [P. R. L.]

This was the only example that I shot of this species, but I procured two adults and one young bird alive. The young bird and one adult died on the voyage home, and I was unable to save their skins: the survivor is now in the Zoological Society's Gardens. A bird from Trinidad agrees very closely with the bird which I shot, but the Margarita bird is somewhat paler and less rufous below.

SPEOTYTO CUNICULARIA BRACHYPTERA.

Speotyto brachyptera Richmond, Proc. U.S. Nat. Mus. xviii. p. 663 (1895); Clark, Auk, xix. p. 262 (1902).

a. ♀ ad. March 22, 1906. [P. R. L.]

Iris yellow.

I saw only one other example of this bird, although

constantly on the look out for it in likely places. Mr. Richmond has separated it from *S. cunicularia*, and considers it paler and very much smaller.

My bird has the wing 5.65 inches; tail 2.40; tarsus 1.65; culmen .55. Iris yellow.

CONURUS ÆRUGINOSUS.

Conurus æruginosus Salvad. Cat. B. Brit. Mus. xx. p. 195 (1891); Robinson, Proc. U.S. Nat. Mus. xviii. p. 664 (1895); Clark, Auk, xix. p. 261 (1902).

a, b. ♂; *c, d, e.* ♀. Jan. 6, 1904. [R. B. S.]

f, g. ♂ ad. March 20, 1906. [P. R. L.]

This is a common bird in Margarita. It frequents the low-lying coast-belt as well as the hills. Large flocks used to fly over regularly in the evening from the tall mangrove-trees lining the large lagoon at the west end of the island, making their way towards the foot-hills, where apparently they roosted. The bird differs in no way from the form found on the mainland.

AMAZONA OCHROPTERA.

Amazona ochroptera Sharpe, Hand-l. B. ii. p. 21 (1900).

Chrysotis ochroptera Salvad. Cat. B. Brit. Mus. xx. p. 288 (1891).

a, b. ad. Jan. 6, 1904. [R. B. S.]

c, d. ♂ ad. March 19, 1906. [P. R. L.]

I saw some of these Parrots in the high trees above El Valle, where Capt. Robinson observed the species in large flocks, but there were also several parties round the lagoon at the west end of the island. I notice that Mr. Richmond refers the Amazons of Margarita Island to *A. amazonica*, but to me they seem to be quite distinct from that species, agreeing entirely with *A. ochroptera*. It is to be noticed that we found two specimens with green on the cheeks and sides of the face as in *C. rothschildi* (cf. Hartert, 'Ibis,' 1893, p. 328, pl. ix.).

In the case of the Margarita bird I should say that the green on the face is indicative of a younger age, and that it is the very old birds which get the sides of the face, as well as the crown and throat, yellow.

One male bird which I shot in March 1906 has the green mandibular bar well marked on one side, but entirely absent on the other. The feathers of the throat in this specimen are yellowish, with a strong tinge of salmon-colour at the bases.

STENOPSIS CAYANNENSIS.

Stenopsis cayannensis Hartert, Cat. B. Brit. Mus. xvi. p. 583 (1892); Clark, Auk, xix. p. 263 (1902).

a. ♂ ad. March 21, 1906. [P. R. L.]

I shot this specimen on the sea-shore about a mile to the east of Porlema. As I was never ashore after sunset, I cannot say whether it is common or not. Capt. Robinson did not secure any examples.

DOLEROMYIA PALLIDA.

Doleromyia pallida Richmond, Auk, xii. p. 369 (1895) (Margarita); Robinson, Proc. U.S. Nat. Mus. xviii. p. 668 (1895); Clark, Auk, xix. p. 263 (1902).

Leucippus fallax Hartert, Tierreich, Trochilidæ, p. 40, part. (1900).

a. ad. June 6, 1904. [R. B. S.]

b-h. ♂; i. ♀ ad. March 19-24, 1906. [P. R. L.]

Very common everywhere in the cactus-scrub. This form is uniformly paler below than *D. fallax*, and in other respects agrees with Mr. Richmond's observations.

AMAZILIA ALICIE.

Amazilia alicie Richmond, Auk, xii., Oct. 1895, p. 368; id. Proc. U.S. Nat. Mus. vol. xviii. p. 670 (1895).

a, b, c. ♂ ad. }

d. ♀ ad. }

e. ad. }

} March 24, 1906. [P. R. L.]

Two of my specimens are moulting, while the other three are in good plumage. I only saw this bird in the heights above El Valle, among the tall forest-trees. It was busy feeding on some scarlet *Salvia*-like flowers. This form is allied to, but distinct from, *A. felicie*, which inhabits the opposite mainland.

CHRYSOLAMPIS MOSQUITUS.

Chrysolampis mosquitus Salvin, Cat. B. xvi. p. 113 (1892); Sharpe, Hand-l. B. ii. p. 119 (1900); Hartert, Tierreich, Trochilidæ, p. 100 (1900).

a. ♂ ad. March 20, 1906. [P. R. L.]

This was the only specimen of this species which I saw on Margarita. Neither Capt. Robinson nor Mr. Clark met with the bird. On Blanquilla Island, which is 60 miles further north and so 60 miles farther from the mainland, I found it extremely common in April 1906. The vegetation and conditions generally on the two islands, so far as this bird is concerned, are identical.

Curiously enough, during a second visit to Blanquilla in February 1907, we only saw and shot one example of this form, although we covered more ground and explored the island more thoroughly than during our first visit.

CHLOROSTILBON CARIBBÆUS.

Chlorostilbon caribbea Sharpe, Hand-l. B. ii. p. 113 (1900); Robinson, t. c. p. 672.

a. ♂ ad. March 24, 1906. [P. R. L.]

This bird does not differ from examples from other localities. It is common above El Valle, but although I saw several in one clearing I only secured one skin.

BUCCO BICINCTUS.

Bucco bicinctus Robinson, Proc. U.S. Nat. Mus. xviii. p. 665 (1895); Clark, Auk, xix. p. 263 (1902).

a, b. ♀ ad. Jan. 7-8, 1904. [P. R. L.]

c, d. ad. March 19-20, 1906. [P. R. L.]

These birds frequent the bushes in the flats behind Porleamar, and I also found them in the foot-hills about El Valle. They sit very still and often exactly match their surroundings, so that one suddenly becomes aware of their presence on a bough. They have a surprisingly loud call-note: I only heard it when they were flying from one tree to another.

I can find no appreciable difference between birds from Margarita and those from the mainland.

MELANERPES SUBELEGANS.

Centurus subelegans Bonap. Consp. Avium, i. p. 119 (1850) (Venezuela).

Melanerpes subelegans Robinson, Proc. U.S. Nat. Mus. xviii. p. 666 (1895); Clark, Auk, xix. p. 263 (1902).

Melanerpes tricolor Hargitt, Cat. B. Brit. Mus. xviii. p. 174, part. (1890).

a, b. ♂ ♀ ad. Jan. 7-9, 1904. [P. R. L.]

c, d, e. ♂; *f, g, h.* ♀ ad. March 19-22, 1906. [P. R. L.]
Iris hazel.

Very common among the foot-hills and cactus-scrub.

I shot one with its head infested with worms. It had become virtually blind, a fact due to two enormous bulging prominences on either side of its head which encroached upon the orbits.

FORMICIVORA INTERMEDIA.

Formicivora intermedia Scl. Cat. B. Brit. Mus. xv. p. 250 (1890); Robinson, Proc. U.S. Nat. Mus. xviii. p. 673 (1895); Clark, Auk, xix. p. 264 (1902).

a, b. ♂. }
c. ♀. } March 19-21, 1906. [P. R. L.]

The female differs from female birds from the mainland in having the upper parts of a slightly browner tint. The outer margins of the secondaries are considerably narrower than in those of continental examples.

I am unable to discover any difference in the length of the bill. Mr. Richmond says the Margarita examples have a slightly longer bill than in those from La Guayra.

THAMNOPHILUS DOLIATUS.

Thamnophilus doliatus Scl. Cat. B. Brit. Mus. xv. p. 207 (1890); Robinson, Proc. U.S. Nat. Mus. xviii. p. 673 (1895); Clark, Auk, xix. p. 264 (1902).

a. ♀ ad. March 24, 1906. [P. R. L.]

Mr. Robinson says that this bird is common in all parts of the island. I shot my specimen behind Porlemar among some bush-scrub and only saw one or two others. I observed none in 1904.

PACHYSILVIA GRISEIPES.

Mylophilus griseipes Richmond, Proc. U.S. Nat. Mus. xviii. p. 678 (1895) ; Clark, Auk, xix. p. 266 (1902).

Pachysilvia griseipes Sharpe, Hand-l. B. iv. p. 255 (1903).

a. ♀ ad. Jan. 6, 1904. [R. B. S.]

This bird was shot by Dr. Sharpe, and was the only one that he saw. In neither of my visits to the island in 1904 and 1906 did I get a single specimen. Capt. Robinson says that it is common in the coast-region, so possibly there is a local migration during the winter months to the mountains or from the mainland. Mr. Richmond has separated the Margarita bird from *P. flavipes*.

DENDROPLEX LONGIROSTRIS.

Dendroplex longirostris Richmond, Proc. U.S. Nat. Mus. xviii. p. 675 (1895).

a. ad. Jan. 9, 1904. [P. R. L.]

b-e. ♂ ad. March 19-21, 1906. [P. R. L.]

Iris hazel-brown.

The exposed culmens of my five birds measure respectively, 1.20, 1.25, 1.30, 1.20, 1.30 in. nearly. On comparing them with a series from the mainland I find that the under surface of those from Margarita is darker in colour and the upper surface a richer chestnut.

With regard to the white centres of the feathers of the lower breast referred to by Mr. Richmond, I agree with him that they are uniformly broader than in examples of *D. picirostris*. The bills are only very slightly longer.

This bird frequents the tall upright *Cerei* which grow only in the arid sandy flats of the island. One would, therefore, have expected it to conform to isabelline characteristics such as Mr. Richmond has recognised in his new species of *Eupsychortyx*, *Doleromyia*, and *Speotyto* which occur in the island: such, however, is apparently not the case.

SYNALLAXIS ALBESCENS NESIOTIS.

Synallaxis albescens nesiotis Clark, Auk, xix. p. 264 (1902).

a, b. ♂ ad. } Margarita Isl., March 23, 1906. [P. R. L.]
c. ? ♀ ad. }
 Iris hazel.

These birds were moulting. As compared with specimens from the mainland, I agree with Mr. Clark as to the colour of the plumage and the measurements of wing and tail.

	Wing.	Tail.
(a)	2·05 in.=54 mm.	2·75 in.=72 mm.
(b)	2·15 in.=54 mm.	67 mm.
(c)	2·15 in.=55 mm.	72 mm.

TYRANNUS DOMINICENSIS.

Saint Domingo Tyrant Lath. Gen. Syn. i. p. 185 (1781 : St. Domingo, Jamaica, and Cayenne).

Lanius dominicensis Gm. Syst. Nat. i. p. 302 (1788).

Tyrannus dominicensis Robinson, Proc. U.S. Nat. Mus. xviii. p. 672 (1895); Clark, Auk, xix. p. 263 (1902).

Tyrannus griseus ScL. Cat. B. Brit. Mus. xiv. p. 271 (1888).

a, b. ad. Jan. 6, 1904. [R. B. S.]

c. ♂ ad. March 24, 1904. [P. R. L.]

SUBLEGATUS ARENARUM.

Elainea arenarum Salvin, P. Z. S. 1863, p. 190 (Punta Arenas, Costa Rica); ScL. Cat. B. Brit. Mus. xiv. p. 153 (1888).

Sublegatus glaber ScL. & Salv. P. Z. S. 1868, p. 171 (Caracas); ScL. Cat. B. Brit. Mus. xiv. p. 157 (1888); Richmond, Proc. U.S. Nat. Mus. xviii. p. 673 (1895).

Sublegatus arenarum Salvin & Godman, Biol. Centr.-Amer., Aves, ii. p. 37 (1888); Clark, Auk, xix. p. 264 (1902).

a-g. ♂ ♀ ad. March 18-22, 1906. [P. R. L.]

This bird is met with everywhere along the flat coast-belts of cactus-scrub. Mr. Richmond (*l. c.*) considers the Margarita bird to be a little smaller than those from the mainland.

I find that the wing in my series varies as follows:—

4 ♂ adults, Margarita Island, from 2·7 to 2·8 inches.

3 ♀ adults, „ „ „ 2·55 to 2·65.

5 specimens Gulf of Cariaco, Venezuela, from 2·7 to 2·8.

2 specimens Laguna del Obispo, Venezuela, from 2·75 to 2·8.

It will be seen that the specimens from Margarita are of about the same dimensions as those from the Gulf of Cariaco, and probably the birds on which Mr. Richmond has remarked are females, as they are certainly smaller than the males.

MYIARCHUS TYRANNULUS.

Myiarchus tyrannulus Sciater, Cat. B. Brit. Mus. xiv. p. 251 (1888); Robinson, Proc. U.S. Nat. Mus. xviii. p. 673 (1895); Clark, Auk, xix. p. 264 (1902).

a. ad. Jan. 9, 1904. [P. R. L.]

b. ♂ ad. March 24, 1906. [P. R. L.]

TYRANNUS MELANCHOLICUS SATRAPA.

Tyrannus satrapa Licht. Nomencl. Av. Mus. Ber. p. 16 (1854: Mexico).

Tyrannus melancholicus Vieill.; Sel. Cat. B. Brit. Mus. xiv. p. 273, part. (1888).

Tyrannus melancholicus satrapa Robinson, Proc. U.S. Nat. Mus. xviii. p. 673 (1895).

a. ♂ ad. Jan. 8, 1904. [P. R. L.]

b. ♀ ad. March 24, 1906. [P. R. L.]

These are of the ordinary mainland form.

CHIROXIPHIA LANCEOLATA.

Chiroxiphia lanceolata (Wagl.); Sel. Cat. B. Brit. Mus. xiv. p. 309 (1888); Robinson, Proc. U.S. Nat. Mus. xviii. p. 672 (1895); Clark, Auk, xix. p. 263 (1902).

a. ♂ ad. March 24, 1905. [P. R. L.]

I have compared this bird with specimens from the mainland and Trinidad which I shot myself, and they appear to be quite alike.

POLIOPTILA PLUMBICEPS.

Polioptila plumbeiceps Robinson, Proc. U.S. Nat. Mus. xviii. p. 681 (1895); Sharpe, Hand-l. B. iii. p. 241 (1901); Clark, Auk, xix. p. 266 (1902); Ridgway, B. N. & M. America, iii. p. 714 (1904).

a, b. ♂ ad. Jan. 6, 1904. [P. R. L.]

c-e. ♂ ad. }
f, g. ♀ ad. } March 20-22, 1906. [P. R. L.]

These birds are common in the low cactus-scrub and acacia-bushes. They flit to and fro from the low bushes with short dipping flights. When feeding they creep up and down the branches and twigs, picking at flies and insects on the leaves and stems. In this respect they behave like our *Sylviæ*. In March they are in full song. The cock bird takes up his position on an isolated twig above some low bush. My field-notes say: "Their song is very pretty and melodious, a series of rapid low flute-like notes slightly increasing in volume towards the end of the trill." I have never seen them behave in a manner to remind one of a Flycatcher. Mr. Clark (*l. c.*) found a nest "much like the nest of *Dendroica æstiva*."

The name *plumbiceps* does not occur in the 'Catalogue of Birds,' and has evidently escaped Dr. Bowdler Sharpe's notice. He appears to have described the Venezuelan Gnatcatcher as *Polioptila sclateri* (*cf.* Sharpe, Cat. B. x. p. 449). The principal character given by him for the latter species, viz., the absence of white along the secondaries, seems to me to be the result of the wearing away of the white edges of the feathers and not to be a specific character. In the British Museum are two specimens of *P. nigriceps* from Chiapas, Mexico, of which one has white edgings to the secondaries, and the other has them grey (like Dr. Sharpe's *P. sclateri*), but I feel sure that this is caused by the abrasion of the feathers. I should not call the Venezuelan and Margaritan birds *darker* grey on the upper surface than Mexican specimens of *P. nigriceps*. In fact, I cannot see any appreciable difference in the tint of the grey, but, if anything, the Margarita birds are slightly *paler* grey. It seems to me that the two species are exceedingly difficult to separate, and I think that *P. sclateri* will have to be united to *P. plumbiceps*.

MIMUS GILVUS.

Mimus gilvus Robinson, Proc. U.S. Nat. Mus. xviii. p. 680 (1895); Clark, Auk, xix. p. 266 (1902).

a-c. ad. Jan. 6, 1904. [R. B. S.]

c-f. ♂ ad. Jan. 8, 1904. [P. R. L.]

g, h. ♂; *i, k, l.* ♀ ad. March 20-22, 1906. [P. R. L.]

The bills of my series average .75 inch, so that, with Mr. Richmond, I should give the bird from Margarita a place intermediate between *M. gilvus* and *M. gilvus rostratus*.

SETOPHAGA RUTICILLA.

Setophaga ruticilla Sharpe, Cat. B. Brit. Mus. x. p. 411 (1885).

a, b. ♂ ad. March 19-20, 1906. [P. R. L.]

I shot three of these birds, which do not appear to differ in any way from the ordinary form. Neither Capt. Robinson nor Mr. Clark appear to have noticed this species on the island, and it is evidently only a straggler. I have been struck with the large quantities of subcutaneous fat with which these birds are always loaded in winter.

DENDRÆCA RUFOPILEATA.

Dendræca rufopileata Ridgway, Proc. U.S. Nat. Mus. vii. p. 173 (1884); Berl. J. f. O. p. 76 (1892); Hartert, Ibis, v. p. 311 (1893).

a. ♀ ad. }
b. ♂ ad. } March 20, 1906. [P. R. L.]

These were the only two examples of this species that I saw, and again neither Capt. Robinson nor Mr. Clark mention it in their lists. My two examples do not differ from a series from Curaçao kindly lent me by Mr. Hartert for comparison. It is one of the commonest birds on Blanquilla Island, sixty miles further out to sea, where I obtained a dozen or more specimens in full plumage.

CÆREBA LUTEOLA.

Cæreba luteola Richmond, Proc. U.S. Nat. Mus. xviii. p. 679 (1895); Clark, Auk, xix. p. 266 (1902); Ridg. Birds of North and Middle America, part ii. p. 416 (1902).

a, b. Jan. 6, 1904. [R. B. S.]

c, d. ♀ ad. March 20, 1906. [P. R. L.]

This is by no means a common bird on the island, and I did not see a dozen individuals during my two visits. My specimens agree with four which I shot on the Cariaco Peninsula, Venezuela, opposite Margarita. These latter, besides differing markedly in the much paler tints of the grey of the throat and the yellow of the breast and abdomen, differ also in their measurements from Trinidad examples, which are larger in the wing, culmen, and tarsus.

Birds from Trinidad and various parts of Venezuela in the British Museum collection agree with my Trinidad examples in colour and measurements, but there is a specimen labelled Santa Marta, Colombia, which is again paler on the throat and under parts, although apparently fully adult, and this together with birds along the Colombian coast-region must be referred to the true *C. luteola*. Since, however, the type of *C. luteola* came from Cumaná, the Trinidad form is that which must be re-named, and I propose to call it *C. trinitatis*.

Careba luteola. Trinidad.

		Wing.	Culmen.	Tarsus.
		mm.	mm.	mm.
(a) ♂ ad.	18 iii. 1905	57	12·5	17
(b) „	19 iii. 1905	57	12·5	16·5
(c) „	18 iii. 1905	58	12·5	16

Careba luteola. Margarita.

		Wing.
		mm.
(a) ♀ ad.	23 iii. 1906	51
(b) „	22 iii. 1906	52

Careba luteola. Laguna del Obispo, Venezuela.

		Wing.	Culmen.	Tarsus.	Tail.
		mm.	mm.	mm.	mm.
(a) ♀ ad.	15 i. 1904	52·5	11·5	15	31
(b) ad.	12 i. 1904	54·6	11·5	14·5	33
(c) „	11 i. 1904	56·5	11·5	15·5	33·5
(d) „	12 i. 1904	54	11·2	15	31

The three specimens from Trinidad, besides differing in measurements as already shown, are very different as regards the darker and richer yellow colour on the breast and abdomen and also on the upper tail-coverts.

EUETHEIA BICOLOR OMISSA.

Phonipara bicolor Sharpe, Cat. B. Brit. Mus. xii. p. 149 (1888).

Euetheia omissa Robinson, Proc. U.S. Nat. Mus. p. 677 (1895).

Euetheia bicolor omissa Clark, Auk, xix. p. 266 (1902).

a, b. ♂ ad. } Jan. 6, 1904. [R. B. S.]

c. ♀ ad.

d. ♂ ad. Jan. 6, 1904. [P. R. L.]

e, f. ♂ ad. March 20, 1906. [P. R. L.]

g, h, i. ♀ ad. March 21, 1906. [P. R. L.]

These birds from Margarita have a melanotic tendency as compared with specimens from the Lesser Antilles and the Bahaman *E. bicolor*. They agree with specimens which I have in my collection from Trinidad and the Cariaco Peninsula, Venezuela, and would seem to answer to the description given of *E. bicolor omissa* by Jardine. Further north in the island of Blanquilla this Finch has a still more melanotic tendency, and I have already separated it under the name of *E. johnstonei*.

CARDINALIS PHENICEUS ROBINSONI.

Cardinalis robinsoni Richmond, Auk, xii. p. 370 (1895: Margarita); Robinson, Proc. U.S. Nat. Mus. xviii. p. 676 (1895); Clark, Auk, xix. p. 265 (1902).

Cardinalis pheniceus, Bp. P. Z. S. 1837, p. 111.

a. ♂ ad. Jan. 6, 1904. [P. R. L.]

b-f. ♂ ad. } March 20-23, 1906. [P. R. L.]

g, h. ♂ ad. }

i-p. ♂ ad. Jan. 7, 1904. [R. B. S.]

Iris hazel-brown.

Mr. Richmond has separated the Margarita Cardinal from *C. pheniceus* as being a smaller bird and having the crest considerably shorter. I have carefully measured the crests

of the series of birds obtained by us on Margarita, and I find that as compared with *C. phæniceus* some few Margarita crests are shorter, but that others are as long and some longer. The wings of my Margarita specimens are on an average decidedly larger than those of Mr. Robinson's birds from Margarita. The crest being a sexual adornment, it might be expected to vary a good deal according to the time of year.

Among the specimens of *C. phæniceus* in the British Museum which I examined is the type.

I am unable to appreciate any difference between the colour of the two forms. Our birds were in good breeding-plumage, whereas those taken by Capt. Robinson in July were, as Mr. Richmond says, worn.

Measurements of *Cardinalis phæniceus robinsoni*
from Margarita Island.

	Wing.	Tail.	Exposed culmen.	Tarsus.
	in.	in.	in.	in.
(a) ♂ ad.	3·4	3·2	·75	·95
(b) ,,	3·35	3·15	·7	·9
(c) ,,	3·3	3·3	·75	·9
(d) ,,	3·3	3·2	·75	·95
(e) ,,	3·35	3·05	·85	·95
(f) ,,	3·4	3·35	·70	·90

TANAGRA MELANOPTERA.

Tanagra palmarum melanoptera Robinson, Proc. U.S. Nat. Mus. xviii. p. 677 (1895); Clark, Auk, xix. p. 266 (1902).

a, b, c. ♂ ad. }
d. ♀ ad. } March 20, 21, 1906. [P. R. L.]

This bird does not differ from specimens in the British Museum from Trinidad and Venezuela.

TANAGRA GLAUCOCALPA.

Tanagra glaucocalpa (Cab.); Robinson, Proc. U.S. Nat. Mus. xviii. p. 678 (1895); Clark, Auk, xix. p. 266 (1902).

a, b. ♂ ad. }
c. ♀ ad. } March 24, 1906. [P. R. L.]

Mr. Richmond thinks that Margaritan examples are slightly larger than those which he has examined from Colombia, and that they are brighter in colour generally.

The measurements of my birds seem to agree with this.

	Wing.	Tail.	Culmen.
	in.	in.	in.
♂ ad.	3.50	2.40	14
♂ ad.	3.45	2.45	14.5
♀ ad.	3.50	2.50	15

TACHYPHONUS MELALEUCUS.

Tachyphonus melaleucus (Sparrm.); *Scl. Cat. B. Brit. Mus.* xi. p. 206 (1886); *Robinson, Proc. U.S. Nat. Mus.* xviii. p. 677 (1895); *Clark, Auk*, xix. p. 266 (1902).

a, b. ♂ et ♀ ad. Jan. 7, 1904. [P. R. L.]

Met with in the tall forest-trees on the central chain of mountains at the east end of the island.

ICTERUS ICTERUS.

Icterus icterus *Robinson, Proc. U.S. Nat. Mus.* xviii. p. 674 (1895); *Clark, Auk*, xix. p. 264 (1902).

Icterus vulgaris *Scl. Cat. B. Brit. Mus.* xi. p. 382 (1886).

a-c. ad. Jan. 6, 1904. [R. B. S.]

d, e. ♂ ♀ ad. Jan. 6, 1904. [P. R. L.]

ICTERUS XANTHORUS HELIOIDES.

Icterus xanthornus helioeides *Clark, Auk*, xix. p. 265 (1902).

Icterus xanthornus (Gm.); *Robinson, Proc. U.S. Nat. Mus.* xviii. p. 675 (1895); *Richmond, t. c.* p. 675.

a-c. ad. Jan. 6, 1904. [R. B. S.]

f-h. ♂ et 2 ♀. Jan. 6, 1904. [P. R. L.]

i, j. ♂ ad. }
k-m. ♀ ad. } March 20-23, 1906. [P. R. L.]

Iris dark hazel.

Mr. Clark (*l. c.*) says that this Oriole differs from the mainland form in being larger, with smaller feet and a thicker heavier bill, and that it has the culmen straighter than in continental examples. The measurements of my series of

birds bear out this statement in even a more pronounced manner than Mr. Clark's, and are as follows :—

	Wing.	Tail.	Exposed culmen.	Tarsus.
	mm.	mm.	mm.	mm.
♂	103	104	22	24
♂	105	92	23	25
♂	105	93	22	26
♀	100	92	22	24
♀	97	87	23	25
♀	97	87	22	25
♀	95	82	23	24
Juv.	88	76	24	24.5

Some of the tails of my examples were very worn.

QUISCALUS INSULARIS.

Quiscalus insularis Richmond, Proc. U.S. Nat. Mus. xviii. p. 675 (1895); Clark, Auk, xix. p. 265 (1902).

a-d. ♂s et ♀. Jan. 6, 1904. [R. B. S.]

e. ♂ ad. March 21, 1906. [P. R. L.]

This is a larger bird than *Q. lugubris*.

XXXI.—*On the Breeding-habits of the Rosy Gull and the Pectoral Sandpiper.* By S. A. BUTURLIN, F.M.B.O.U. (Communicated by H. E. DRESSER.)

(Plate XII.)

[Mr. S. A. BUTURLIN has recently sent me specimens of the young in down of the Pectoral Sandpiper and the Rosy or Cuneate-tailed Gull in order that I might exhibit them, and, if possible, have them figured; they are, I believe, the first examples of these birds ever obtained in that stage of plumage. I therefore exhibited them on his behalf at the meeting of the British Ornithologists' Club on the 19th of June last (see Bull. B. O. C. xix. p. 109), and, owing to the courtesy of the Editors of 'The Ibis,' I am now able to give figures of both.

Mr. Buturlin, in his article on the "Breeding-grounds of the Rosy Gull" ('Ibis,' 1906, pp. 334-336), has given very